IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

VERSATA SOFTWARE, INC. AND VERSATA DEVELOPMENT GROUP, INC.,
Plaintiffs,

-vs-

Case No. A-13-CA-371-SS

ZOHO CORPORATION,
Defendant.

ORDER

BE IT REMEMBERED on this day the Court reviewed the file in the above-styled cause, specifically Plaintiffs Versata Software, Inc. and Versata Development Group, Inc. (collectively, Versata)'s Opening Claim Construction Brief [#44], Defendant Zoho Corporation (Zoho)'s Opening Claim Construction Brief [#45], Versata's Reply Claim Construction Brief [#46], Zoho's Reply Claim Construction Brief [#47], the parties' Joint Proposed Claim Constructions [#65], Versata's Opening Post-*Markman* Brief [#62], Zoho's Opening Post-Markman Brief [#61], Versata's Responsive Post-*Markman* Brief [#64], Zoho's Responsive Post-*Markman* Brief [#66], Versata's Post-*Markman* Supplemental Brief [#75], Zoho's Post-*Markman* Supplemental Brief [#76], the Report and Recommendation (R&R) of the Special Master [#81], Versata's Objections [#85], Zoho's Objections [#84], Versata's Response to Zoho's Objections [#87, and Zoho's Response to Versata's Objections [#86]. Having reviewed the documents, the governing law, the arguments of the parties at the *Markman* hearing, and the file as a whole, the Court now enters the following opinion and orders.

Background

I. Procedural History

This case is a patent infringement suit brought by Versata against Zoho. At issue are three patents. The first is United States Patent Number 6,834,282 (the '282 Patent), titled "Logical and Constraint Based Browse Hierarchy with Propagation Features." The second is United States Patent Number 6,907,414 (the '414 Patent), titled "Hierarchical Interface to Attribute Based Database." The third is United States Patent Number 7,092,740 (the '740 Patent), titled "High Density Information Presentation Using Space-Constrained Display Device."

The Court, through Special Master Karl Bayer, held the *Markman* hearing on May 28, 2014. The Court, in light of the Supreme Court's decision in *Nautilus v. Biosig Instruments Inc.*, 134 S.Ct. 2120 (2014), held a supplemental *Markman* hearing on the disputed indefiniteness of two claim terms on July 31, 2014. The Special Master issued his Report and Recommendation on claim construction on September 26, 2014. To the extent the parties have made specific objections to the Special Master's factual findings or legal conclusions, they are entitled to de novo review of those findings and conclusions. FED. R. CIV. P. 53(f).

II. Patent Descriptions

The patents-in-suit were prosecuted and issued in the early and mid-2000s. The '282 Patent allows a way of presenting product information to potential buyers. Specifically, the '282 Patent describes the creation of flexible hierarchies where groups defined by classifying information from the database are mixed with flexible, logical groupings to create an expressive and customizable hierarchical display. The hierarchy consists of two types of nodes in a tree-like structure. The first type of node uses constraints, which are rules utilizing attributes already stored in the database. For

example, a database containing computers might have a constraint-based node where "manufacturer" equals "Apple." "Apple" is an attribute already stored in the database and associated with that item. The second type of node is based on logical groupings, which cannot be specified by one or more constraints because the items themselves do not have common attributes. Logical groupings are based simply on the preferences of the user and what the user finds logical. For example, there might be a grouping of particular items which are on sale, and the system administrator wishes to group the on-sale items together although they do not necessarily share any particular attributes already stored in the database. For instance, the database may lack a "sale" attribute, but even without this attribute, logical groupings allow grouping items together even though the items do not necessarily share anything in common.

Allowing for a single hierarchy with both constraint- and logical-based groupings allows for flexibility in building hierarchies. Traditionally, to create a new grouping of information, such as "on sale," a new attribute would need to be added to the database before the "on sale" node could be created. The '282 Patent's system allows these categories to be created ad hoc without needing to change the underlying data structure or modifying the underlying database. In other words, sellers can develop the hierarchy to be arbitrarily expressive and provide any number of navigational paths by which the buyer can navigate the seller's catalog and reach its items.

The '414 Patent describes a networked environment where multiple clients may access the same data but where each client can be presented with a different subset of data, organized into views based on the specific needs of that client. Although the data itself is contained in the database non-hierarchically, the views created for the clients are hierarchical. For example, a particular client might want to see data first organized by type of device and then by brand. A different client might

be more interested in a particular operating system and then seeing what kind of devices are available with that operating system. These preferences are then built into customized views, and the views themselves display the items from the database, organized hierarchically based on the information requested by the client.

The '414 Patent's purported innovation was to organize data into a hierarchy for display purposes without having to organize the underlying data itself hierarchically. This feature is important because the common "relational database" is not hierarchical, but using hierarchical displays of information is incredibly useful and intuitive for a typical software user. Relatedly, this configuration of data into a hierarchy does not require any knowledge of relational databases or how to operate them, permitting users, not just programmers, to build their own customizable hierarchies to display the data relevant to them.

The '740 Patent innovated in the then-young mobile devices space and allows for the creation of certain "external states" a user wishes to monitor. For example, a user might want to remotely monitor the CPU load on a critical server at any given time and want different indications of that state which can be easily and readily understood. Different colors might be used as indications of the monitored state: green if load is less than 50%, yellow if load is between 50% and 75%, and red if load exceeds 75%. The '740 Patent allows a user to set up the system so information related to the monitored server is sent to one or more mobile devices and displayed compactly using the user-configured indicators in the display. Some of the claims of the '740 Patent cover displays combining graphical and textual representations while other claims cover displaying the data in two-dimensional arrays.

The goal of the '740 Patent's innovation is to allow a relatively large amount of data about particular external states to be monitored easily and for the information to be digested by the user at a glance. Excessive clicking and linking is reduced or eliminated, and critical information is clearly displayed on the space-constrained mobile device. These useful compact displays are coupled with the flexibility of allowing a non-programmer user to configure what external states to monitor and how to monitor them. This combination creates a useful system for monitoring data from a mobile device.

Analysis

I. Claim Construction—Legal Standard

When construing claims, courts begin with "an examination of the intrinsic evidence, i.e., the claims, the rest of the specification and, if in evidence, the prosecution history." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002); *see also Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1327 (Fed. Cir. 2001).

The words in the claims themselves are of primary importance in the analysis, as the claim language in a patent defines the scope of the invention. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The words of a claim "are generally given their ordinary and customary meaning." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005). "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application."[1] *Id.* at 1313. The inquiry into how a person of ordinary skill in the art

[1] This hypothetical person is now commonly referred to simply as an "ordinarily skilled artisan." *E.g.*, *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1365–66 (Fed. Cir. 2013).

understands a claim term provides an "objective baseline" from which to begin claim interpretation. *Id.* The person of ordinary skill in the art is understood to read a claim term not only in the context of the particular claim in which the term appears, but in the context of the entire patent, including the specification; thus, both the plain language of the claims and the context in which the various terms appear "provide substantial guidance as to the meaning of particular claim terms." *Id.* at 1314.

The specification also plays a significant role in the analysis. *Id.* at 1315. The Federal Circuit has repeatedly reaffirmed the principle that the specification "is always highly relevant . . . . Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). In interpreting the effect the specification has on the claim limitations, however, courts must pay special attention to the admonition that one looks "to the specification to ascertain the meaning of the claim term as it is used by the inventor in the context of the entirety of his invention, and not merely to limit a claim term." *Interactive Gift*, 256 F.3d at 1332 (internal quotation marks and citations omitted).

The final form of intrinsic evidence the Court may consider is the prosecution history. Although the prosecution history "represents an ongoing negotiation between the PTO and the applicant" and therefore "often lacks the clarity of the specification and thus is less useful for claim construction purposes," it can nonetheless "often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Phillips*, 415 F.3d at 1317.

Aside from the intrinsic evidence, the Court may also consult "extrinsic evidence," which is "all evidence external to the patent and prosecution history, including expert and inventor

testimony, dictionaries, and learned treatises." *Id.* While extrinsic evidence "can shed useful light on the relevant art," the Federal Circuit has explained it is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language.'" *Id.* at 1317 (quoting *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)). Extrinsic evidence in the form of expert testimony may be useful to a court for "a variety of purposes, such as to provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." *Id.* at 1318. However, conclusory, unsupported assertions by an expert as to the definition of a claim term are not useful, and should be discounted. *Id.* In general, extrinsic evidence is considered "less reliable than the patent and its prosecution history in determining how to read claim terms," although it may be helpful. *Id.*

The purpose of claim construction is to "'determin[e] the meaning and scope of the patent claims asserted to be infringed.'" *02 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996)). Thus, "[w]hen the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute." *Id.* However, "district courts are not (and should not be) required to construe *every* limitation present in a patent's asserted claims." *Id.* at 1362. For example, no construction is required if the requested construction would be "'an obligatory exercise in redundancy,'" or if the "disputed issue [is] the proper application of a claim term to an accused process rather the scope of the term." *Id.* (quoting *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997)).

II. Application

A. Special Master's Recommendations

The Special Master's recommended constructions are as follows:

Claim Term	Recommended Construction
Node ('282 Patent, Claims 1–23)	Member[s] of the hierarchy that [is] [are] associated with a unique label and include[s] a list of the labels of the members that are its children.
Logical grouping ('282 Patent, Claims 1–23)	A grouping that does not use constraints.
Constraint ('282 Patent, Claims 1–23)	Requirement[s] stored in the database that is based on an attribute associated with items in a database and a permissible range of values for that attribute.
Items ('282 Patent, Claims 1–23)	Data regarding products and/or services in a catalog.
View ('414 Patent, Claims 1–8, 15–16, 27–43)	A view is a created environment that defines what data a client sees and how that subset of data is presented to the user. Views restrict some classifiers to a specific value and set an order of viewing classifiers.
Created environment ('414 Patent, Claims 1–8, 15–16, 27–43)	Client customized virtual file system specification.
Hierarchical data structure ('414 Patent, Claims 1–16, 23–24, 27–43)	A structure of data organized into successive levels or layers according to classifiers wherein each level or layer inherits the classification requirements of the higher level or layer immediately above it.
Data classification information ('414 Patent, Claims 17–26)	Indefinite
User-defined ('740 Patent, Claims 1–45)	Defined or selected by a user.

User-specified indication ('740 Patent, Claims 1–45)	Indication selected or defined by a user.
Associating a first user-specified indication on the display with a user-defined external state ('740 Patent, Claims 1–40)	Does not require construction; plain meaning. or Associating a first indication selected or defined by a user with an external event defined or selected by a user.
Associating a first user-specified indication on the display with a user-defined external state, wherein the first indication is a graphical indication ('740 Patent, Claims 1–21, 23)	Does not require construction; plain meaning. or Associating a first graphical indication selected or defined by a user with a single external event defined or selected by a user.
A user-defined operation for monitoring the user-defined external state ('740 Patent, Claims 1–40)	"Operation" is a query, lookup, database access or other retrieval or information-gathering step.

To the extent the parties have not objected to the Special Master's constructions of certain claim terms, the Court accepts the Special Master's recommendations as to those claim terms without further comment. These terms are: "logical grouping"; "view"; and "hierarchical data structure."

B. Objections

The Court now turns to the parties' specific objections.

1. "node"

The Special Master recommended this term be construed as: "member[s] of the hierarchy that [is] [are] associated with a unique label and include[s] a list of the labels of the members that are its children." The parties agree nodes are associated with unique labels, but Versata objects to the Special Master's construction that nodes "include[s] a list of the labels of the members that are its

children." Specifically, Versata argues this construction violates the principle of claim differentiation because "Claim 9 and Claim 19 both recite (depending from different independent claims) that 'each of the nodes specifies a unique label and list of the unique labels of its children.'" Pl.'s Objections [#85], at 7.

The Special Master's construction finds its support in the language of the '282 Patent. For instance, the Abstract provides "[e]ach node has a list of labels of the nodes that are its children." Statements to this effect appear repeatedly throughout the specification. *See, e.g.*, '282 Patent, col. 5 ll. 4–5 ("Each node in the hierarchy is associated with a unique label. Each node also contains of list of the labels for each of its child nodes (if any)."), col. 6 ll. 65–67 ("Each node has a unique label or name associated with it, each node also contains a list of the names of its children.").

Despite this support found in the language of the patent, Versata urges its claim differentiation argument. Under the Special Master's recommendation, independent claims 1 and 11 only require nodes include "a list of the labels of the members that are its children." Dependent claims 9 and 19, however, require each node specify "a list of the *unique* labels of its children." '282 Patent, col. 11 ll. 21–22 (emphasis added). By including the word "unique," the dependent claims are narrower, and the Special Master's construction does not violate the principle of claim differentiation.

Versata also contends Zoho conceded at the *Markman* hearing the accuracy of Versata's proposed definition. *See* Hr'g Tr. at 27:8–15. Zoho simply agreed the Versata construction accurately captured some of the notions of a node but failed to include the requirement a node includes a list of the labels of the members that are its children. The specification consistently

includes this requirement and to not include it would, as Zoho suggests, separate the claims from what is described in the specification. *See* Def.'s Resp. Versata's Objections [#86], at 3.

Versata's objection is OVERRULED.

2. "constraint"

The Special Master recommended this term be construed as: "requirement[s] stored in the database that is based on an attribute associated with items in a database and a permissible range of values for that attribute." Versata objects to the phrase "stored in the database," and argues because constraints can be stored in places other than the database, such a limitation is improper.

The intrinsic record describes where constraints are stored in only one instance: "One embodiment of the invention is presented with reference to FIG. 2. . . . The constraints are physically stored with (although maintained from) the catalog data in database **10**." '282 Patent, col. 5 ll. 56–57, col. 6 ll. 18–19. The patent never indicates the constraints can be stored anywhere other than a database.

Versata argues the single reference in the intrinsic record involves direct reference to Figure 2 and therefore including "stored in a database" "arbitrarily limit[s] the claims to the preferred embodiment." Pl.'s Objections [#85], at 9. The limitation, however, is not arbitrary as a database is the only storage location referenced in the specification and the only one which functionally makes sense given the context of the entirety of the invention as described in the specification.

The '282 Patent is about e-commerce. As the "Background of the Invention" opens: "The present invention relates to browsing on-line catalogs and web sites, and more specifically to a flexible and arbitrarily expressive rules-based browsing hierarchy for on-line catalogs and web sites." *See* '282 Patent, col. 1 ll. 36–39. Zoho's expert testified it is possible to store the constraints in

places other than the database. *See* Hr'g Tr. at 58:21–59:5. For instance, one could store them in the software. *Id.* But he made very clear storage in the software would make little sense and would not be a flexible, interactive system, which is what the invention claims to be. *Id.* at 60:2–19. He further testified anyone involved in e-commerce would understand the constraints are stored in the database. *Id.* at 61:23–62:2. This allows multiple, non-technical users to access and modify the hierarchy, which is one of the central benefits of the invention. In contrast, if the constraints were stored in the software, only a programmer or a team of skilled programmers could maintain and update the system. *Id.* at 62:5–13. Reading this patent in the context of e-commerce, storing the constraints in the database is the only logical way. While the agreed definition of a person having ordinary skill in the art[2] does not include anything about e-commerce, the background of the invention makes clear this patent is all about e-commerce.

Versata also contends requiring constraints be stored in a database is inconsistent with the meaning of Claim 21. *See* Pl.'s Objections [#85], at 10. Claim 21 describes aggregating constraints before searching the database for items, and Versata argues the Special Master's construction implies some un-described first search of the database to aggregate the constraints before searching for the items within the database. The Court, however, fails to see how the Special Master's construction requires a first search of the database to aggregate the constraints. Claim 21 provides for "aggregating the constraints specified by a leaf node and its ancestors in response to selection of one

[2]The parties agreed to the definition of one of ordinary skill in the art offered by Zoho's expert, which is "someone with at least a bachelor's degree in computer science or an equivalent field (or equivalent industry experience) and at least one year of experience designing and implementing database-backed websites and, in the case of the '740 Patent, user interfaces for portable computing devices." *See* Pl.'s Opening Post-*Markman* Br. [#62], at 1.

of the leaf nodes." '282 Patent, col. 12 ll. 43–45. The Special Master's construction simply requires aggregating constraints stored in a database in response to selection of one of the leaf nodes.

Versata's objection is OVERRULED.

3. "items"

The Special Master recommended this term be construed as: "data regarding products and/or services in a catalog." Versata objects to limiting items to "products and/or services" and requiring they be "in a catalog." The Special Master's construction finds its support in the language of the patent. For instance, the "Summary of the Invention" states "[t]he invention is a hierarchy for representing a plurality of catalog items in a catalog database." '282 Patent, col. 3 ll. 43–44. The "Background of Invention" provides "[t]he present invention relates to browsing on-line catalogs and web sites," and "[t]he presentation created by the hierarchy . . . should guide the buyer through the catalog of product offerings (as stored in the database of the seller) to specific items of interest to the buyer with reasonable ease and flexibility." *Id.* at col. 1 ll. 36–37; *id.* at col. 2 ll. 3–8. The "Detailed Description" states "[t]he method and apparatus for hierarchically representing items in a database provides a highly flexible and expressive catalog browsing hierarchy by which a buyer can navigate the items in a seller's catalog database." *Id.* at col. 4 ll. 44–47.

Versata characterizes the consistent references to catalog items and databases as merely a description of the preferred embodiment, but the invention is not limited to products or services in a catalog. *See* Pl.'s Objections [#85], at 11. Versata offers examples of how it thinks it might work in a non-catalog context. *See id.* at 11–12. The patent, though, only describes examples involving catalogs. The "Summary of Invention" could not be clearer: "The invention is a hierarchy for representing a plurality of catalog items in a catalog database." *See Verizon Servs. Corp. v. Vonage*

Holdings Corp., 503 F.3d 1295, 1308 (Fed. Cir. 2007) ("When a patent thus describes the features of the 'present invention' as a whole, this description limits the scope of the invention.") (citations omitted). The Special Master's construction adheres to the words of the '282 Patent and the e-commerce context it describes.

Versata's objection is OVERRULED.

4. "created environment"

The Special Master recommended this term be construed as: "client customized virtual file system specification." The term was not initially at issue but rather emerged at the *Markman* hearing during argument over the term "view," which contained the term "created environment." *See* Hr'g Tr. at 99:18–100:20. The parties now agree view means "a created environment that defines what data a client sees and how that subset of data is presented to the user. Views restrict some classifiers to a specific value and set an order of viewing classifiers." Due to the broad nature of the term "created environment" embedded in the definition of "view," the Special Master recognized the term required construction. *See id.* at 100:12–14, 101:19–22, 102:9–103:5. At the hearing, Zoho's expert offered a definition for "created environment" ultimately offered by Zoho in its pleadings: "a client customized virtual file system specification." *See id.* at 105:8–18. In opposition, Versata offered a definition of "environment" found in the Microsoft Computer Dictionary: "the configuration of resources available to a user." *See* Pl.'s Opening Post-*Markman* Brief [#62], at 8.

As an initial matter, Versata's arguments are misplaced because it focuses on the meaning of "environment," but the term appearing in the patent and which was discussed at the *Markman* hearing is "created environment." As Zoho's expert testified, "created environment" is a not a term a person of ordinary skill in the art would have understood. *See* Hr'g Tr. at

100:5–101:11. Not wanting to recommend a definition of "view" which contained a term, "created environment," which is not a term of art and is not defined elsewhere in the patent, the Special Master properly identified the term as needing construction. *See id.* at 102:9–13.

Versata's primary objection to the Special Master's recommendation is that it improperly limits the '414 Patent to file systems. Reading the patent, however, the Court is unable to identify any portion describing a non-file system. To the contrary, the patent only describes file systems. For instance, the specification states "[e]mbodiments of the present invention allow a client to access a database as if the database were a file system, representing the data in a hierarchical structure, such as a familiar directory tree structure." '414 Patent, col. 5 ll. 4–7. Similarly, the specification repeatedly describes the invention only in the context of a Network File System (NFS). *See, e.g.*, *id.* at col. 6 ll. 45–51; cols. 6–7 ll. 61–13; col. 7 ll. 13–62; col. 10 ll. 29–31; cols. 11–12 ll. 48–28; FIGS. 3, 7A, 7B. Zoho's expert offered his definition with this understanding of the patent in mind. *See* Hr'g Tr. at 105:8–18 ("[T]he clients here you've got to remember are computer programs that are clients to NFS servers. So the environment that's created by the software is a client customized virtual file system according to the NFS protocol in the preferred embodiment at least; but certainly it's always a client customized virtual file system, so that's how I understand the invention.").

Versata also objects to the Special Master's recommendation as violating the principle of claim differentiation. Specifically, Versata argues the dependent claims 2 and 4 can no longer be distinguished from claim 1. Claim 2 states: "[t]he method as recited in claim 1, wherein the first hierarchical data structure is a file system directory tree," and claim 4 states [t]he method as recited in claim 1, wherein the first hierarchical data structure is a file system directory tree according to

NFS." '414 Patent, col. 16 ll. 10–12, 16–18. The limitations, however, apply to "the first hierarchical data structure," and do not apply to "views" or "created environments."

Third, Versata objects to inclusion of the phrase "virtual file system specification" as being confusing to a jury and lacking support in the claim language. Specifically, Versata contends there is no difference between "virtual file system specification" and "file system" because the whole invention is limited to computer systems where everything is "virtual." Versata, however, does not account for the word "specification," which does distinguish these phrases. The file system "specification" used to build something else is different from the file system itself.

Finally, the Court finds Versata's dictionary definition of "environment" as "the configuration of resources available to a user" to be overly broad and poorly suited to the context of the patents-in-suit. The specification describes "resources" as "databases, printers, or applications." *Id.* at col. 7 ll. 60–62. Consequently, the construction of "view" becomes "a created configuration of databases, printers, or applications that defines what data a client sees and how that subset of data is presented to the user." Versata does not explain why such a construction makes sense and fails to convince the Court to adopt its proposal.

Versata's objection is OVERRULED.

5. "data classification information"

The Special Master recommended this term be construed as indefinite. The standard for "indefiniteness" is whether "[the] claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus*, 134 S. Ct. at 2124. The term "data classification information" does not appear at all in the specification and only appears in claims 17–26. Versata relies on the

claim language referring to "data classification information wherein the data classification information represents classifiers of data." *See* '414 Patent, col. 17 ll. 51–53. Yet "representations of classifiers of data" fails to inform, with reasonable certainty, one skilled in the art about the scope of the invention.

At the supplemental hearing held on the specific issue of indefiniteness, Versata's expert struggled to explain what exactly data classification information is under direct questioning from the Special Master. *See* Supp. Hr'g Tr. at 84:8–87:10. As one example, the parties agreed the term "classifier" means database field names. *See* Joint Proposed Claim Constructions [#65], at 3. During the hearing, Versata's expert included field values as part of the data classification information. *See* Hr'g Tr. at 87:1–3. Yet field values are classifiers, not representations of classifiers as Versata and its expert's proposed construction suggests for "data classification information." When Versata's own expert cannot effectively and consistently explain "data classification information," the Court concludes the term fails to inform, with reasonable certainty, one skilled in the art about the scope of the invention.

Also, when directly asked what one skilled in the art as of December 2000 would have understood data classification information to mean, Versata's expert responded:

> You're asking me a little bit to answer on, you know, what I don't know. That is what it means to me. So if you're asking, you know, to someone else could they come up with another definition, I presume they could. That is what it means to me.

Id. at 103:15–25. This response indicates the term "data classification information" fails to inform persons of ordinary skill in the art with reasonable certainty of the scope of the invention.

Versata's objection is OVERRULED.

6. "user-defined" and "user-specified indication"

The Special Master recommended "user-defined" be construed as "defined or selected by a user" and the term "user-specified indication" be defined as "indication selected or defined by a user." The only dispute here is whether the terms should be limited to "portable device users" as Zoho proposes. More precisely, the dispute is whether the user of the portable device must fully program the system himself or whether it can be set up by another individual such as an administrator. The language of the patent does not require the ultimate user of the portable device be the one who also does the defining or selecting, and adding this extra limitation is confusing and unnecessary.

The language of the patent also contradicts Zoho's proposal. For instance, in one of the preferred embodiments, "the user-defined operation is performed using a networked computational service remote from the portable device," and in others, "association of the first indication with the user-defined external state is performed without use of the portable device." *See* '740 Patent, col. 2 ll.19–27. To limit "user-defined" to "defined or selected by the portable device user" does not make sense if the user-defined operation can be performed remotely from the portable device or without use of the portable device.

Zoho also argues many of the examples of external states described in the specification are framed in the first person. For example, "Do I have new email? What is the status (armed, disarmed, etc.) of my home burglar alarm system? Have are [sic] any of the servers for which I am responsible down?" *Id.* at col. 5 ll. 6–10. The mere fact the questions are posed in the first person and directed toward the ultimate portable device user does not require, however, the portable device user be the one to actually define the external states to be monitored and specify the indications

reflecting changes in those external states. As the parties discussed at the hearings, an older parent lacking tech savvy might have his child do the defining and specifying for the ultimate use and benefit of the parent. The phrasing of the questions in first-person is simply functional and makes the system easier to use. Zoho's expert agreed the patent allowed for a third party who is not the ultimate portable device user to set up the system. *See* Hr'g Tr. at 138:16–18 ("Well, I actually agree with the Plaintiff here that a younger person could set this whole system up for his or her parent."). Certainly a mobile device user could set up the system totally on his own, but the patent does not require it.

Relatedly, Zoho worries if some person other than the portable device user does the defining or specifying, the portable device user will not know each indication's significance, rendering the invention inoperable. This concern is overstated considering the indication and graphical display is potentially self-explanatory, and if not, the administrator or whoever did set up the system could explain to the portable user each indication's significance easily enough.

Zoho's objection is OVERRULED.

7. **"Associating a first user-specified indication on the display with a user-defined external state" and "Associating a first user-specified indication on the display with a user-defined external state, wherein the first indication is a graphical indication"**

The Special Master recommended the term "Associating a first user-specified indication on the display with a user-defined external state" be construed as either: "does not require construction; plain meaning" or "associating a first indication selected or defined by a user with an external event defined or selected by a user." The Special Master recommended the similar term "Associating a first user-specified indication on the display with a user-defined external state, wherein the first

indication is a graphical indication" be construed as either: "does not require construction; plain meaning" or "associating a first graphical indication selected or defined by a user with a single external event defined or selected by a user." Both parties object to these disjunctive recommendations. Versata argues no construction of these terms is necessary while Zoho contends they should be construed to require association of the indication to a "single external state."

The core dispute is over whether an indication selected or defined by a user must be associated with a "single external state," as Zoho proposes, or whether associating the indication with a user-defined "external state," as the plain language of the term provides, is sufficient. Put differently, the question is whether one indication must correlate with a single external state or whether an indication may relate to multiple external states. The patent language does not limit itself to the one-to-one limitation urged by Zoho, and the Court finds these terms do not require construction.

Zoho first argues the asserted claims provide "associating a first indication . . . with an external state" in the singular whereas non-asserted claims 36 and 37 recite associating display indications with "external states" in the plural. Therefore, Zoho contends if "external state" is not limited to "single external state," there is a claim differentiation problem. Zoho is incorrect. While claims 36 and 37 discuss "external states," they do not address one-to-one relationships versus one-to-many, and Zoho's claim differentiation argument is inapplicable. *See* '740 Patent, cols. 10–11 ll. 53–13. Moreover, claims 36 and 37 differentiate themselves on other grounds. Claim 36 describes "a space constrained display including a two-dimensional array," which distinguishes it from all asserted claims. Claim 37 recites "wherein the external states . . . includes one or more of

weather status, environmental status, system status, information status, and news, sports or financial status," and these subject-matter limitations differentiate it from any of the asserted claims.

Zoho next objects, arguing Versata, throughout prosecution of the asserted claims, emphasized an external state referred to a single external event. Zoho cites the following statement from the applicant as supporting its view: "[The Vanden Heuvel] passage speaks of a *relationship* between the *number of external states selected* and the *number of icons displayed*, rather than an *association of a particular external state* with *a particular indication on the display*.") (emphasis in original). Zoho argues this statement reflects the applicant's attempt to overcome the prior art by emphasizing the distinction between one-to-one and one-to-many associations, but the referenced prosecution history does not bear on this issue. The passage addresses the fact the indications in the Vanden Heuvel prior art were not "associated with" any external state. The patentee amended its claims to reflect the indications are "user-specified" to clarify its position. The patentee never referenced "single" external states and did not amend the claims to require the user-specified indication be associated with only a "single" user-defined external state.

Zoho cites no language in the patent requiring indications be associated with "single" external states or demanding one-to-one relationships. On the other hand, there is language in the patent supporting a broad, flexible relationship between indications and external states. *See, e.g.*, '740 Patent, col. 5 ll. 20–21 ("The set of possible associations between individual display indications 202 and external states is virtually limitless."); col. 5 ll. 32–35 ("In any case, user-defined external states are associated with particular display indications. While each display indication may be individually associable with a monitored external state, users may wish to (and some implementations may provide facilities to) group like display indications. In this way, display

indications corresponding to related external states can be grouped together to convey categorical information.").

The Court MODIFIES the Special Master's recommendations concerning the terms "associating a first user-specified indication on the display with a user-defined external state" and "associating a first user-specified indication on the display with a user-defined external state, wherein the first indication is a graphical indication." Instead of the disjunctive recommendations, the Court concludes these terms should be held to their plain meaning, and no construction is necessary. Versata's objection is SUSTAINED, and Zoho's objection is OVERRULED.

8. "A user-defined operation for monitoring the user-defined external state"

The Special Master recommended this term, and more specifically the term "operation", be construed as: "a query, lookup, database access or other retrieval or information-gathering step." This language for "operation" for monitoring comes from the specification: "Given a user-specified display configuration, monitoring process or service 320 performs a query, lookup, database access or other retrieval or information-gathering step (323) to ascertain each monitored state . . . ." *See* '740 Patent, col. 6 ll. 61–64. The operation for monitoring, therefore, takes the form of a query, lookup, database access or other retrieval or information-gathering step.

Zoho argues the term is indefinite or, alternatively, "a query or script authored by the portable device user for monitoring the external state defined or selected by the portable device user." Zoho's indefiniteness argument focuses not on the patent's failure to describe the operation for monitoring itself but rather its failure to describe with sufficient detail how a user goes about completely defining the operation for monitoring. In other words, Zoho is not asserting "operation" as indefinite but instead the meaning of "user-defined." As described above, however, the parties' dispute over

"user-defined" really focuses on the meaning of "user" and whether it should be limited to "portable device user" as urged by Zoho. There is no argument from Zoho about "defined" as both parties agree it means "defined or selected." Now, Zoho appears to be slipping an indefiniteness argument regarding "defined" into the instant term, "a user-defined operation for monitoring the user-defined external state." Yet in all of the other claim term disputes, Zoho has not argued "defined" is indefinite. Instead, Zoho agreed it means "defined or selected."

Nevertheless, the Court finds the patent does describe establishing monitoring techniques sufficiently to avoid indefiniteness. For instance, the specification provides:

> [U]sers may be provided a generalized capability to define arbitrary external states and techniques for ascertaining these external states. For example, a generalized scripting facility could be provided. Alternatively, the user-defined set of external states may be selected from amongst predetermined states with corresponding predetermined monitoring techniques. Some implementation may provide both facilities for establishing the user-defined set.

Id. at col. 5 ll. 22–30.

In addition, claims 8 and 16 provide examples of establishing operations for monitoring. Claim 8 provides "the establishing of the user-defined operation includes selecting from amongst a predetermined set of at least partially pre-defined inquiries." *Id.* at col. 8 ll. 48–51. Claim 16 provides "the establishing of a user-defined operation includes establishing at least one of: a user-defined selection; a user-defined criteria; a user-defined threshold; and a user-defined query definition." *Id.* at col. 9 ll. 23–30. Zoho complains these claims only describe partially how to establish operations for monitoring because of language like "includes" and "partially pre-defined." Yet if a party were to perform the method of claim 1 and choose to establish the operation for monitoring by setting a user-defined threshold, it would infringe claim 1 and claim 16. Zoho's

argument amounts to a demand for a level of certainty not required. *See Nautilus*, 134 S. Ct. at 2128 ("[T]he definiteness requirement must take into account the inherent limitations of language. Some modicum of uncertainty . . . is the price to pay for ensuring the appropriate incentives for invention.").

As for Zoho's alternative construction, the Court rejects it for a number of reasons. First, it again restricts "user" to "portable device user," a limitation rejected above. Second, it unnecessarily introduces a new term—"authored"—with no explanation. Moreover, the proposed construction would limit the claim to scripts authored by the user, but the patent provides otherwise. For example, the patent contemplates either providing a generalized scripting facility or allowing the user to select scripts from a predetermined list. *See id.* at col. 5 ll. 22–30. The patent also is clear "user-defined" means defined or selected. *See id.* at col. 2 ll. 62–63. Yet Zoho's definition reads "user-selected" out of the term "user-defined."

Zoho's objection is OVERRULED.

Conclusion

The parties' objections to the Special Master's recommended constructions are OVERRULED IN PART and SUSTAINED IN PART, as described in this order, and the Special Master's recommended constructions are ACCEPTED AS MODIFIED.

Accordingly,

IT IS ORDERED that Versata Software, Inc. and Versata Development Group, Inc.'s Objections [#85] are OVERRULED IN PART and SUSTAINED IN PART;

IT IS FURTHER ORDERED that Zoho Corporation's Objections [#84] are OVERRULED;

IT IS FINALLY ORDERED that the Report and Recommendation of the Special Master [#81] is ACCEPTED AS MODIFIED. The following chart lists the Court's construction of the disputed claim terms:

Claim Term	Court's Construction
Node ('282 Patent, Claims 1–23)	Member[s] of the hierarchy that [is] [are] associated with a unique label and include[s] a list of the labels of the members that are its children.
Logical grouping ('282 Patent, Claims 1–23)	A grouping that does not use constraints.
Constraint ('282 Patent, Claims 1–23)	Requirement[s] stored in the database that is based on an attribute associated with items in a database and a permissible range of values for that attribute.
Items ('282 Patent, Claims 1–23)	Data regarding products and/or services in a catalog.
View ('414 Patent, Claims 1–8, 15–16, 27–43)	A view is a created environment that defines what data a client sees and how that subset of data is presented to the user. Views restrict some classifiers to a specific value and set an order of viewing classifiers.
Created environment ('414 Patent, Claims 1–8, 15–16, 27–43)	Client customized virtual file system specification.
Hierarchical data structure ('414 Patent, Claims 1–16, 23–24, 27–43)	A structure of data organized into successive levels or layers according to classifiers wherein each level or layer inherits the classification requirements of the higher level or layer immediately above it.
Data classification information ('414 Patent, Claims 17–26)	Indefinite
User-defined ('740 Patent, Claims 1–45)	Defined or selected by a user.

User-specified indication ('740 Patent, Claims 1–45)	Indication selected or defined by a user.
Associating a first user-specified indication on the display with a user-defined external state ('740 Patent, Claims 1–40)	Does not require construction; plain meaning.
Associating a first user-specified indication on the display with a user-defined external state, wherein the first indication is a graphical indication ('740 Patent, Claims 1–21, 23)	Does not require construction; plain meaning.
A user-defined operation for monitoring the user-defined external state ('740 Patent, Claims 1–40)	"Operation" is a query, lookup, database access or other retrieval or information-gathering step.

SIGNED this the 15th day of January 2015.

Sam Sparks

SAM SPARKS
UNITED STATES DISTRICT JUDGE